

place the claims in condition for allowance. Applicants thank the Examiner for his helpful suggestions and for the courtesy of his time.

Applicants have amended claims 56, 63, 65, and 67-73, and have cancelled claims 74 and 75. The amendments are fully supported by the specification and introduce no new matter.

In view of the amendment above and arguments below, Applicants respectfully request withdrawal of the rejections and allowance of the claims.

Claim Amendments

Each of the amendments is fully supported by the specification and introduces no new matter.

Claim 56 has been amended to clarify that each deposition domain includes a 'biomolecule'.

Claims 63 and 65 have been amended to clarify that the substrate is modified.

Claims 67-72 have been amended to clarify that the claimed array includes a biomolecule.

Claim 73 has been rewritten as an independent claim.

Newly added claim 93, which depends from claim 56, is drawn to an array comprising more than one molecular deposition domain, each domain including a biomolecule selected from the group consisting of a protein, an antibody, a nucleic acid, a succinimide, a DNA molecule, and an RNA molecule, or combinations thereof.

Allowed or allowable claims

The Examiner has indicated that claims 66, 76-84, and 89-92 are allowed.

Applicants believe that claim 66 is not presently under consideration, having been withdrawn from consideration due to a restriction requirement, and because Applicants cancelled claim 66 without prejudice in an amendment under 37 C.F.R. 1.312, mailed June 4, 2002.

The Examiner has not indicated the status of claim 85, which depends from claim 83. Applicants respectfully submit that in view of the fact that claim 83 is allowed, claim 85 should also be allowed.

Claims 67-73 and 75 are objected to as depending from a rejected claim, but would be allowable if rewritten as independent claims. Applicants have amended claim 56, from which claims 67-73 and 75 depend, and submit that claim 56 is allowable. Applicants have

rewritten claim 73 as an independent claim. Applicants have cancelled claim 75, because it is co-extensive in scope with claim 56, as amended. Applicants request that the objection be withdrawn.

Rejections under 35 U.S.C. 102

Claims 56-63, 65, and 74 were rejected under 35 U.S.C. 102(b) as being anticipated by Xu et al. (Lanmuir 13:127-129, 1997), which is characterized as teaching a discrete molecular deposition domain including alkanethiolate islands.

Claims 56-63 and 65 were rejected under 35 U.S.C. 102(a) as being anticipated by Piner et al (Science 283:661-663, 1999). Piner et al is characterized as teaching a discrete molecular deposition domain where 16-mercapto-hexadecanoic acid is deposited.

Applicants have amended claim 56, from which claims 57-63, 65, and 74 depend, limiting the arrays to those having a molecular domain including a biomolecule.

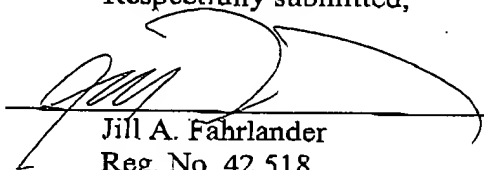
Applicants respectfully request that the rejection be withdrawn.

As the application is now in condition for allowance, Applicants request withdrawal of the rejection and allowance of the claims.

Please charge or credit Deposit Account No. 50-0842 with any fee due in connection with this submission.

Respectfully submitted,

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MARKED UP VERSION SHOWING CLEARLY THE CHANGES

56. A molecular array for characterizing molecular interaction events, comprising:
- (a) a substrate; and
 - (b) at least one discrete molecular deposition domain on said substrate wherein the spatial address of the domain is less than one micron squared in area and each domain includes a biomolecule [biologically or chemically based molecule] deposited on the substrate at a pre-selected location.
63. The molecular array of claim 56 wherein the [surface] substrate is modified by one or more of the group consisting of gold, an amino group, a carboxyl group, and polymers.
65. The molecular array of claim 56 wherein the [surface] substrate is chosen from the group consisting of hydrophobic materials and hydrophilic materials.
67. The molecular array of claim 56 where in the [deposition material] biomolecule is a protein.
68. The molecular array of claim 56 wherein the [deposition material] biomolecule is an antibody.
69. The molecular array of claim 56 wherein the [deposition material] biomolecule is a nucleic acid.
70. The molecular array of claim 56 wherein the [deposition material] biomolecule is a succinimide.
71. The molecular array of claim 56 wherein the [deposition material] biomolecule is a DNA molecule.
72. The molecular array of claim 56 wherein the [deposition material] biomolecule is [a] an RNA molecule.
73. A [The] molecular array [of claim 56 wherein the deposition material] for characterizing molecular interaction events, comprising:
- (a) a substrate; and
 - (b) at least one discrete molecular deposition domain on said substrate wherein the spatial address of the domain is less than one micron squared in area and each domain includes [is] a silane deposited on the substrate at a pre-selected location.